BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NO. 2001-420-E - ORDER NO. 2002-19

JANUARY 11, 2002

IN RE:	Application of South Carolina Electric & Gas Company for a Certificate of Environmental Compatibility and Public Convenience and Necessity for Jasper County Generating Facility	)))))	ORDER GRANTING CERTIFICATE

I. INTRODUCTION

This matter comes before the Public Service Commission of South Carolina (Commission) on the Application of South Carolina Electric & Gas Company (SCE&G; Company) for a Certificate of Environmental Compatibility and Public Convenience and Necessity to construct and operate an 875 MW combined-cycle electrical generating plant on a site located in Jasper County near Hardeeville, South Carolina. The Application was filed pursuant to the provisions of S.C. Code Ann. Section 58-33-10 et seq. (1976 & Cum. Supp. 2000).

The Application contains a Statement of Need for the project. According to that Statement, the Company currently has a net generating capacity of 4563 megawatts from units on its system, consisting of 644 megawatts at V.C. Summer Nuclear Plant, 2,745 megawatts at 8 coal and steam generating plants, 804 megawatts at six hydro plants, and 370 megawatts of peaking combustion turbine capacity at various locations throughout its system. Including power available under long-term purchase agreements with other

utilities and non-utility generators, the Company has a total available capability of 4,588 megawatts.

Further, according to the Statement of Need, the Company's peak demands are forecasted to increase by 857 megawatts during the next ten years. According to the Company, without the additional capacity of the proposed plant, SCE&G will not be able to meet the increasing need for power and assure system reliability. In order to provide the necessary generating capacity and to assure reliable electric service to its customers, the Company proposes to construct the combined-cycle generating plant in Jasper County, which will consist of three General Electric 7FA combustion turbine generators, three heat recovery steam generators (HRSGs), and one steam turbine generator. The combustion turbines will be equipped with inlet chilling to maximize the output of the plant during hot weather, and the plant will have the capability to generate additional "peaking" output of up to 120 megawatts using supplementary firing. The peak output from the plant will be approximately 900 megawatts during the winter and 875 megawatts during the summer.

With regard to notice, a copy of the application was served on the Chief Executive Officer of each municipality and the head of each State and local government agency charged with the duty of protecting the environment or planning land use in the area in the county in which any portion of the facility is to be located. Further, notice was given to persons residing in the municipalities entitled to receive such notice pursuant to S.C. Code Ann. Section 58-33-120(3)(1976) by publication of a summary of the application and the date on which it was or was about to be filed in newspapers of

general circulation. The Company furnished affidavits of publication to show publication of the Notice. A Petition to Intervene was received from the Consumer Advocate for the State of South Carolina.

Accordingly, a hearing was held on December 3, 2001, at 10:30 a.m. in the offices of the Commission, with Hon. William Saunders, Chairman, presiding. The Company was represented by Catherine D. Taylor and Francis P. Mood. The Company presented the testimony of Neville O. Lorick, Joseph M. Lynch (Direct and Rebuttal), Stephen M. Cunningham (Direct and Rebuttal), and John W. Preston, Jr. The Consumer Advocate was represented by Hana Williamson and presented the testimony (Direct and Surrebuttal) of Peter J. Lanzalotta. The Commission Staff was represented by F. David Butler.

In addition to the witnesses referenced above, the Commission heard from seven public witnesses regarding this project. Duane Swygert spoke in opposition to the project expressing concerns about noise, traffic, environmental impact and the possibility of an alternate site. He also submitted a petition requesting a night hearing. This petition and a letter from one Rodney Cannon were entered into the record as exhibits. However, Mr. Swygert subsequently withdrew his testimony, exhibits, and request. The other six public witnesses spoke in favor of the project. They were: Thomas McClary, a Jasper County Councilman; Dericee Steele, a local business owner and member of Hardeeville City Council; Gladys Jones, a Jasper County Councilwoman; Chris Bickley of the Lowcountry Regional Council of Governments; Hal Stone, Director of National Business Development for the S.C. Department of Commerce; and Clementa Pinckney, S.C. State

Senator, Senate District 45. The testimony of the various witnesses confirmed the support of the project by Jasper County Council, Hardeeville City Council, Lowcountry Regional Council of Governments, and the S.C. Department of Commerce, as well as the individual support of each witness. Witnesses McClary, Jones, and Pinckney stated that there was widespread knowledge of the project in Jasper County and a broad base of local support for it.

II. SUMMARY OF TESTIMONY

Neville Lorick, President and Chief Operating Officer of SCE&G, presented in his testimony an overview of the Company's planning for the Jasper County Generation Project. He explained how SCE&G arrived at the decision to request certification of the Commission to build the Project.

Mr. Lorick testified that the decision to build a combined cycle plant arose from SCE&G's annual load and resource forecast and related planning. The Company projects that its system will require 254 megawatts of additional capacity by 2004, and 480 megawatts by 2006 due to growth in its peak demand. SCE&G considered various options to meet this need, including the addition of two combustion turbines of 150 megawatts in 2004 and a third CT in 2006. However, Mr. Lorick stated that it was more economical to add the two CTs in a combined-cycle configuration. The combined cycle turbines would add 459 megawatts to the system in 2004 and would produce electricity more efficiently than a simple cycle configuration. SCE&G further determined that increasing the scale of the combined-cycle facility to include three CTs and supplementary duct-firing would result in the cost of incremental capacity being

approximately sixty percent less than the cost of base capacity. The three CTs facility would provide 875 megawatts to SCE&G's system. Therefore, SCE&G determined that this option was a prudent solution to meet its customers' needs for economical and reliable energy. Mr. Lorick further explained that the Company arranged for a long term sale of 250 megawatts for nine years, beginning in 2004, to carry the cost of the incremental capacity until the capacity is needed by its South Carolina customers. Therefore, additional power will be available to SCE&G's system in the future when it is needed; Mr. Lorick states that SCE&G's customers will realize economy of scale benefits due to the construction of the larger plant's construction.

Mr. Lorick further detailed that another important aspect of the selection of the Jasper site relates to the availability and volume of natural gas necessary for the operation of the proposed project. The CTs will utilize natural gas as a primary fuel, and will consume approximately 155,000 dekatherms (DT) per day at 100% load factor. Mr. Lorick explained that the Company plans to contract with SCANA Energy Marketing, Inc., for 120,000 DT for firm natural gas supply, and it will purchase the balance on an interruptible basis. The project site itself is located near the point where SCG Pipeline, Inc., will connect. The gas primarily will flow to the plant through SCG from a liquefied natural gas facility near Savannah, Georgia. The contractual arrangements contemplated will allow the generation units to be available and utilized when SCE&G's electric generation economic dispatch model dictates the need. If natural gas is not utilized due to interruption of supply, the generation units will fire on distillate oil. The Company will have oil storage tanks of 3.6 million gallons of capacity to supply the CTs.

In response to examination by the Commission, Mr. Lorick assured the Commission that all reasonable alternatives were considered in the decision to site this generation facility. He believes that the decision to build this plant is an optimal solution in light of all of the factors and circumstances.

Dr. Joseph M. Lynch, Manager of Resource Planning for SCE&G, presented the Company's load and resource forecast and its reserve margin requirements in order to demonstrate the need for additional capacity and that the proposed project is the most cost effective option for meeting these requirements. Dr. Lynch discussed the Company's growth in peak demand and the rate at which it expects such demand to continue. The Company's average annual change in peak demand for the eleven year period 1990 to 2001 was 88 megawatts per year; the average change for the next nine years, 2002 to 2010, is forecasted to be 88 megawatts per year. The Company's firm peak demand is the difference between its gross peak and its demand side management capacity. Its supply requirement is the sum of the Company's firm peak demand and its reserve margin range of 12% to 18% (for calculation purposes, Dr. Lynch used 15%). Included in the Company's existing capacity are 350 megawatts related to the Urquhart Re-Powering Project, approved by this Commission in Order 2000-544 (June 28, 2000) which is scheduled to come on line during 2002. Dr. Lynch projects a supply shortfall of 254 megawatts by 2004 and 480 megawatts by 2006. Without additions to system generation, the supply shortfall will reach 870 megawatts by 2010.

Dr. Lynch also explained the analyses and assumptions leading to the Company's conclusion that the proposed project is the best option for meeting capacity requirements.

He specifically discussed the economies of scale to be achieved by building an 875 megawatt plant, although all of this capacity will not be needed immediately in 2004. To avoid unreasonably imposing costs on the Company's native load customers prior to the time capacity is needed, the Company has entered into a nine-year contract to provide 250 megawatts of firm capacity to another supplier. The contract provides, however, that this capacity is recallable by the Company during these nine years, if it is needed by the Company to serve its native load. In its decision-making process, the Company considered purchased power as an option, but decided not to pursue this alternative.

The Company is familiar with the electric power markets and, in fact, went through an extensive consideration of this alternative in connection with its Urquhart Project, referenced above. The Company decided to pursue self-owned capacity in the present case, because according to Dr. Lynch, (1) it provides significantly more flexibility in scheduling and does not put the Company at risk for penalties; (2) it is more reliable since the Company will maintain the plant and the availability of capacity will not be subject to the time required and uncertainty inherent in enforcing purchased power agreements when its customers' energy needs are immediate; (3) it should be more economical in the long run, since purchased power costs tend to rise with inflation, while the cost of carrying a self-owned plant will decrease over time as a result of depreciation; and (4) there are economic benefits to the community when generation is built.

Stephen M. Cunningham, manager for the proposed project, presented a general description of the project. SCE&G is negotiating a fixed price contract for the engineering, procurement and construction of the combined cycle generating plant to be

located on a rural site in Jasper County. The project will consist of three General Electric 7FA combustion turbine generators, three heat recovery steam generators and one steam turbine generator. The combustion turbines will be equipped with inlet chilling to maximize the output of the plant during hot weather. The plant will generate approximately 775 net megawatts during the winter and 750 net megawatts during the summer. The plant will have the capability to generate additional "peaking" output of up to 120 megawatts using supplementary firing. The peak output from the plant will be approximately 900 megawatts during the winter and 875 megawatts during the summer. Natural gas will be the primary fuel for the plant, with distillate (No. 2) fuel oil as a back-up. Natural gas will be supplied to the site through a connection to interstate pipelines. The facility will comply with all applicable federal, State and local laws, specifically including all applicable environmental laws and regulations. The plant's water requirements (supply and discharge) will be supplied by Beaufort-Jasper Water and Sewer Authority utilizing a new water treating facility to be located adjacent to the plant. The electrical output of the facility will be delivered through the 230 kV transmission grid. The substation connecting the plant to the transmission lines is included in the project cost of approximately $450 million. Transmission siting requirements will be addressed in a later filing with this Commission.

John W. Preston, Jr. SCE&G's final witness was John W. Preston, Jr. Mr. Preston is Senior Engineer in the Corporate Environmental Services Department of SCANA Services, Inc., and provides direct support for SCE&G's generation group. In his testimony, Mr. Preston discussed the environmental matters related to the Jasper

Generating project. He described SCE&G's effort to minimize the environmental impacts of the project, the permitting process, and the status of the acquisition of required environmental permits. According to Mr. Preston, the Jasper project will have minimal environmental impacts due to a variety of reasons. Since clean-burning natural gas will be the primary fuel utilized to fire the generation, sulfur and ash emissions will be very minimal. State of the art control technology for nitrous oxide emissions will be utilized, and therefore the concentration of these emissions will be extremely low. Combustion controls will also minimize the carbon monoxide and volatile organic compound emissions. Mr. Preston further stated that use of water and the discharge of water at the Jasper project will have minimal environmental impacts. No direct discharge of process wastewater to the waters of the United States will be necessary. SCE&G will purchase water from the Beaufort Jasper Water Authority (BJWA). The project usage will be 5530 gallons per minute during normal usage. Sanitary wastes and other smaller waste streams will be discharged to the BJWA. SCE&G has conducted a wetland delineation at the Jasper site, and all construction and operation activities will avoid wetlands, thus having no impact on those ecosystems. Mr. Preston went on to say that an Endangered Species Assessment was performed, and no State or federally listed threatened or endangered species were observed in the project area.

In regards to permitting, Mr. Preston testified that the Company has made application to receive approval from all regulatory agencies at the federal, State, and local levels. SCE&G has submitted a complete application for its air permits to the Department of Health and Environmental Control's (DHEC) Bureau of Air Quality. The

United States Environmental Protection Agency will also conduct a review of this application. The Company expects approval of the air permit in May 2002. In regards to permitting for waters usage and discharge, no National Pollutant Discharge Elimination System (NPDES) permit will be required, except for a general permit for stormwater discharges during construction and operation. The stormwater permits are expected to be issued in February 2002.

Mr. Peter J. Lanzalotta testified on behalf of the Consumer Advocate. Although he concluded that SCE&G's need for additional generation is "apparent" (pp. 2-3), he criticized the way in which the Company addressed impacts on the electric transmission system, natural gas supplies and water-related systems. He also asserted that the Company should have solicited competitive proposals for purchased power from wholesale suppliers as a part of its economic analysis.

Based on Mr. Lanzalotta's testimony, at the close of the proceedings, counsel for the Consumer Advocate filed a motion requesting that, if the Commission issues a Certificate of Environmental Compatibility and Public Convenience and Necessity to the Company, it should include a condition that the Company evaluate the purchased power option before requesting any future rate relief.

III. FINDINGS OF FACT

1. The Commission finds that the Company meets the requirements of Section 58-33-120 regarding the submittal of the application. Further, the Company provided, as a late filed exhibit, a summary of alternative generating sites and the economic and engineering justification for siting the facility at the proposed Jasper

County site. This late filed exhibit was critical to the decision of the Commission, and a similar exhibit should be considered a required component of all future siting applications before this Commission. Consistent with Section 58-33-160, the Commission also finds the following:

2. The Company clearly demonstrated the need for the facility consistent with the Company's 2001 Integrated Resource Plan (IRP). Lynch Prefiled Testimony pp. 2-8; Lanzalotta Prefiled Testimony pp. 2-3. The SC General Assembly has not instituted any form of electric deregulation, and the facility is needed to meet the requirements of the Company to reliably serve native load. Further, an 875 MW facility allows for economies of scale resulting in incremental capacity costs of approximately 60% of the cost of base capacity. Lynch Prefiled Testimony, p. 8.

3. An 875 MW facility is within the demand forecast error bounds of the 2001 IRP, and promotes increased reliability within the Company's territory and the Company's required VACAR reserve margin. Lynch Prefiled Testimony, *supra*.

4. Due to the remote location of the facility, the probable environmental impact is justified. No evidence of adverse environmental impact was presented which would preclude this Commission from granting this certificate application; Preston Prefiled Testimony pp. 2-6. However, to insure that the Company meets the required environmental permits (both State and Federal) and the environmental compatibility requirements of the Siting Act, the Company shall provide a copy of all such permits, once issued, to the Commission to become a part of the docket in this case.

5. Considering the state of available energy and environmental technology and the nature of the economics of various alternatives, the proposed combined cycle natural gas facility provides a clean and efficient alternative to meeting the Company's obligation to serve. Further, the addition of a gas fired facility adds additional fuel diversity to the Company's generation portfolio which is currently heavily dependent on coal. Lynch Prefiled Testimony, *supra*; Lynch Prefiled Rebuttal Testimony pp. 1-5.

6. Due to the location of this facility and the proximity of electric transmission and natural gas pipelines, and the efficiency of the proposed facility, the Commission finds that the facility serves system economy. Given the future consideration of regional transmission organizations (RTOs), the facility will also promote the development of transmission within this area of the State to minimize loop flows and other transmission concerns between the VACAR and Southern systems. Cunningham Prefiled Testimony pp. 2-5; Lynch Prefiled Testimony and Prefiled Rebuttal Testimony, *supra*.

7. Further, the Company provided, as a late filed exhibit, the transmission interconnection study on the transmission impacts of the proposed facility. This late filed exhibit was critical to the decision of the Commission, and a similar exhibit should be considered a required component of all future siting applications before this Commission.

8. Further, we find and conclude that the Company's decision-making process which considered, but rejected purchased power, was adequate and prudent. The Company's knowledge of electric markets and recent experience with its Urquhart Re-

Powering Project made unnecessary an elaborate RFP process in reaching its final decision. Lynch Prefiled Testimony and Prefiled Rebuttal Testimony, *supra.*

IV. CONCLUSIONS

1. The Company has complied with all requirements of the Utility Facility Siting and Environmental Protection Act, S.C. Code Ann. Section 58-33-10 et seq. (1976, Supp. 2000).

2. The Application of the Company is granted as filed.

3. A Certificate of Environmental Compatibility and Public Convenience and Necessity is hereby granted for the project.

4. SCE&G has established a basis for the need for the facility. The Company has established that a shortfall in the ability of the Company to generate adequate supplies of electricity may well result in the future without the construction of the project. *See* Finding of Fact No. 2, above.

5. The nature of any environmental impact resulting from the project is minimal. *See* Finding of Fact Nos. 5 and 6, above.

6. The impact of the facility upon the environment is justified, considering the state of available technology, the economics of various alternatives, and other pertinent considerations. *See* Findings of Fact Nos. 5 and 6, above.

7. The facility will serve the interests of system reliability and economy. *See* Findings of Fact Nos. 2, 3, 5, 6 and 7, above. Clearly, the project is needed to assure system reliability for needed capacity. Moreover, we concur in the Company's decision to provide this capacity with owned generation. The uncertainty of supply and attendant

costs presently associated with purchased power coupled with the economic benefits of owned generation make the Company's decision to build generation a prudent one.

8. With regard to applicable State and local laws and regulations, the evidence presented indicated concerted compliance commitments and efforts by the Company.

9. Public convenience and necessity require the construction of the proposed facility. We conclude, based on the testimony of the witnesses and the evidence in this case as a whole that the construction of this facility is necessary in order to generate needed amounts of electricity, overcome the forecasted shortfall, and maintain a proper reserve margin. We believe that without the facility, SCE&G may well face an inability to generate needed amounts of electricity and will not be able to meet the growth in peak demand in the future, much less maintain a proper reserve margin. The project is needed to properly serve the public.

10. The Consumer Advocate filed a Motion which asserts that if the Commission issues the certificate in this matter, it should include a condition that SCE&G evaluate the power purchase option before it requests rate relief. This Motion is made by the Consumer Advocate based on the belief that SCE&G did not compare the estimated cost of the proposed facility with the cost to purchase generating capacity from other wholesale suppliers. SCE&G in response to the Motion asserts that it did, in fact, make a comparison of the option to purchase generating capacity from other wholesale suppliers; it simply did not make the evaluation using a Request For Proposal.

In further response to the Consumer Advocate's motion, in calendar year 2001, the Commission has issued certificates to three different exempt wholesale generating companies. The certified capacity of these facilities totals 2,040 MW. Should the Company need to purchase power from the wholesale market, capacity exists in excess of the combined need of all VACAR in South and North Carolina to meet both their total firm obligation and required SERC reserve margins. Therefore, the Motion of the Consumer Advocate is denied. We would note that should SCE&G file a rate application including this plant in rate base, the Consumer Advocate will have an opportunity to address this issue during that rate proceeding.

This Order shall remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:

Chairman

ATTEST:

Executive Director

(SEAL)